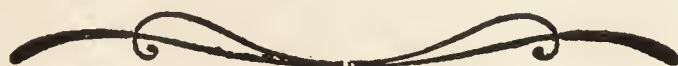


 **RIPLEY** 

**Urban District Council.**



**DR. EDWARD GAYLOR'S**

**THIRTY-FIRST**

# **ANNUAL REPORT**


*As Medical Officer of Health,*

**From January 1st, 1904, to December 31st, 1904**

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RIPLEY :

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# To the Ripley Urban District Council.

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## GENTLEMEN,

This is my Thirty-first Annual Report of the vital statistics of your district, and its general sanitary condition.

There is a slight *increase* in the total mortality for the year 1904, as compared with 1903, but this increase doesn't indicate any particular insanitary condition, nor is it caused by any particular disease of a preventible character.

The number of the Notifications of Infectious Diseases have been as follows :—

1901	...	...	46
1902	...	...	50
1903	...	...	49
1904	...	...	68

Table III. shows that out of this number, 68 Notifications of Infectious Diseases, 26 were admitted to the Isolation Hospital, viz. :—

Small-Pox	...	6
Diphtheria	...	1
Scarlet Fever	...	18
Typhoid Fever	...	1
		—
		26

The deaths from all causes were males 80 and females 76, giving a total of 156 deaths, as against 138 in 1903.

This year, 1904, we had 43 Scarlet Fever cases notified, and *one* death from that disease, and also one death from Diphtheria, one from Typhoid Fever, and one from Puerperal Fever.

The other deaths from what are called Zymotic Disease, were two from Measles, and one from Whooping Cough.

There were also two deaths from Infantile Diarrhœa.

Some of these diseases are not of the preventible class, as I don't believe that sanitary measures would very much influence Measles, or Whooping Cough.

There can be no dispute about the fact that the district is in a much better condition than it was years ago, and this betterness would be much more plainly seen if we could change the habits of a certain class of persons, who at this present time really require the attention of your officers at regular intervals, in order to keep their surroundings at all decent and cleanly. They are a constant worry, and are loud in their complaints about the very slight faults of their neighbours, who live in a much better sanitary condition than they are themselves.



I find that those who create nuisances are the most likely to complain about them.

I know there are certain localities in the district which have acquired a reputation for dirt and filth, and they seem determined to retain it. You may visit these places and advise the people what to do in order to remove, what to other persons would be a life's discomfort, and yet when you re-visit the place the same condition of things again exists, in an aggravated form, and you can only content yourself with the idea that you have prevented the nuisance assuming a dangerous shape by your repeated calls and advice.

I am very glad to say that there is a much larger class who are glad to avail themselves of sanitary instruction and advice, and very readily act upon it.

Very many owners of cottage property exhibit a much greater willingness to carry out improvements than used to be the case.

This readiness to assist your officers would be much more prominent, but in so many cases they very justly plead that in a short time it will be the same again, and the money wasted.

I wish we could convince people that dirt breeds disease, and disease produces misery and discontent, and that cleanliness and pure air produce the most pleasant sensation possible, and give the very essence of human happiness.

Some people like to say cleanliness is next to Godliness. If the latter is ruled or governed by the former, I am afraid I see very many of the ungodly. I believe sanitation is the handmaid of religion, and they must go hand in hand. I don't think religion comes first. In sanitation individual effort is required, as well as Acts of Parliament.

The world is a beautiful place to live in; it is man's ignorance and wilfulness that spoils it. We should soon have a great change, if we could see "dirty air" as we can "dirty water."

#### SMALL-POX.

The dissemination of Small-Pox by the class of persons known as tramps or vagrants, has given rise to all sorts of opinions and plans as to how to deal with such a prolific source of the disease.

My humble opinion of the matter is, that if the whole population were properly vaccinated and re-vaccinated, the filthy tramp and the infected vagrant might wander about at their own sweet will.

It has often been said that the law ought to compel Vaccination and re-Vaccination on these tramps and vagrants, and I agree with it, but our legislators already recognise the protection and safety which vaccination affords, and which everybody may avail themselves of, so that in a great measure the unvaccinated have only themselves to blame if their contact with this vagrant class makes them victims to Small-Pox.

It has often been well said that the un-vaccinated may be looked upon as susceptible material, and most certainly they are a source of danger in every community, as they invite the disease to visit them.

Since 1874 vaccination and re-vaccination has been compulsory in Germany.

Isolation in one sense of the word is unknown, and the country is saved all the expense of Small-Pox Hospitals, and the trouble and annoyances which attend these institutions.

Their treatment of the disease is in a pavilion, where cases of fever, and other medical and surgical cases are dealt with. There is no danger in this arrangement, as these other patients are protected by vaccination, and they have no fear, and this is what Small-Pox Isolation is in Germany.

Berlin has two millions inhabitants, and that city provides twelve beds for Small-Pox cases, and these are generally imported from Austria and Russia.

In England, with a population at that time of 32 millions, the deaths from Small-Pox during 12 years, was six thousand seven hundred and sixty-one.

In Germany, with a population of 56 millions, in the same 12 years the deaths from Small-Pox were six hundred and seven.

Some people say that vaccination is no good except to fill the pockets of the doctors. But it would soon fill the graveyards and the hospitals, and the eyes of the mourning relatives would be filled with tears, victims of the anti-vaccination folly, and the surviving race would be hideous specimens of humanity.

Dr. McVail, speaking of the Glasgow epidemic of Small-Pox, says that four hundred thousand persons were re-vaccinated, and not one of them took Small-Pox, and he goes on to say, that as in Egypt long ago, the angel of death passed by the houses of the Israelites, whose lintels and doorposts were sprinkled with blood, so in Glasgow Small-Pox passed by those who had submitted to the rite of vaccination.

Wealth and poverty, cleanliness or dirt, drunkenness or total abstinence, youth or age made no difference to the recently re-vaccinated, so far as the Small-Pox was concerned. They remained immune from the beginning to the end.

The people lived together in the same tenements, subject to the same sanitary, or insanitary water supply, drainage, and refuse removal, their children attending the same schools, and themselves engaged in the same occupations.



They differed only in one respect, some had submitted to re-vaccination and others had refused.

Small-Pox left the former unscathed, and all its victims were among the latter.

With reference to the so-called conscientious objectors to vaccination, the Lord Chief Justice of England referred to the matter at the Assizes at Birmingham in July, 1904. He said "that no general objection to vaccination should come into consideration at all, either on the ground of interference with the liberty of the subject, or the question of parental control. The only question which magistrates have to do with is, Does the applicant conscientiously believe that vaccination will be prejudicial to the health of the child in question?"

It is satisfactory that there are many more vaccinations going on than there were a few years ago. And I find in my districts that a case of Small-Pox brings with it a demand for vaccination and re-vaccination.

I cannot give the exact vaccination returns, but I believe that in the year 1900 about 80 per cent. of the children born in England were vaccinated.

What we require now is re-vaccination at adult age. We should then be in a fair way of stamping out Small-Pox.

I am very much afraid that in days gone by, much of what we call vaccination was very inefficiently done.

Cases were passed over, and called successful vaccination, where only one point, or insertion had taken effect, and other cases were put down as "Insusceptible," when the vaccine lymph was old and worn out.

To be a protective against Small-Pox, vaccination must be efficient by means of proper lymph, and an intelligent operator.

Dr. Angus, of Newcastle-on-Tyne, gives the following instance of the protective power of vaccination.

He says that on May 9th, 1904, he vaccinated a child 4 months old, and seven days afterwards he visited the house to examine the baby's arm, and he found the child's mother in bed with Small-Pox, and the baby suckling at its mother's breast.

The mother was taken to the Small-Pox Hospital, and the child was weaned from its mother, and the doctor saw the child in the middle of July, and was quite well, and never had any symptoms of Small-Pox.

In the year 1903, we had six cases of Small-Pox, and the same number in 1904.

Three cases occurred in April, two in June, and one in July.

Every detail of these was given in full at the time of their occurrence, and it is not necessary for me to say very much about them.

The first three cases were at Walker's, or Bridge's Lodging-house, and were men who were working at the water main laying by the Ilkeston and Heanor Water Company. The pipe track came through the district.

There were three outbreaks of the disease at Bridge's Lodging-house, viz, April 2nd, 17th, and 18th. The men were removed to the Belper Small-Pox Hospital the same day the cases were notified, disinfection thoroughly carried out, and certain articles which couldn't be subjected to boiling water, etc., were destroyed by fire. The premises were overhauled, all filth removed, and a general cleansing was done.

Several of the inmates of this house had been recently vaccinated at various places on their travels. I examined each one thoroughly, and of course strongly advised re-vaccination. Some of them stoutly refused, but eventually seven persons were re-vaccinated on the promise of two shillings each. The lodging-house was closed from April 19th to May 2nd, and the inmates kept in close quarantine.

The adults were paid 10s. per week each, and their lodging money also, and a person was also paid to fetch in their food and any other things they might require. These men were not a pack of idle vagrants, but they had regular work and good wages on the pipe track, and nothing would have prevented them going about their work as usual, unless some arrangement as above was made.

No other lodgers were admitted during the two weeks' quarantine, and half-price was paid for the empty beds.

It is a very difficult thing to deal with these men. They ask for, and think they have a right to demand money equal to their weekly working wage, and they are very firm and impudent in their demands, to be paid for vaccination and for the time they lose whilst their arms unfit them for work. I think in these cases the money was well spent, as it prevented a possible epidemic of Small-Pox.

The next case was that of a man living near the Old Station, at bottom of Peas Hill. He was a labourer on the Sewage Works at Derby, and came home at each week end. Small-Pox was rife at Derby at this time, and when the man told me where he lodged at Derby it wasn't difficult to localise the disease. He was, of course, taken to hospital at once, and some assistance given to his wife, who was dependent upon her husband's wages.

The next case was that of a man who worked as a tailor in the town. He was what is known as on the road, and had obtained work here about a fortnight previous.



Two other travelling tailors also worked with him at the same shop, and all of them had been working at Tamworth and Alfreton before coming to Ripley.

These two men couldn't be dealt with in any way reasonable, by any measures, to keep them isolated for about a fortnight, and they left the town, and refused to say in what direction, or where they were going.

These three tailors all lodged at the Workman's Home Lodging-house, one of them in a bed next to the Small-Pox patient the night previous, and the other man in a room with three other beds all occupied the previous night. Twenty-four persons slept in this lodging-house the same night. Two of the beds were burnt, and three other beds were taken to Belper to be passed through the disinfector at the hospital.

The remaining case of the disease was contracted under the following circumstances:—The proprietor of the Workman's Home Lodging-house, where the last case was taken from, was engaged the greater part of the next day in disinfecting the Small-Pox room, and the room next to it. He used disinfectants freely, and in a few days afterwards he took Small-Pox himself, and was taken to hospital. He had been vaccinated in childhood, but had refused re-vaccination some time before this occurrence.

All these half-dozen Small-Pox cases aroused the inhabitants of the district to seek prevention in vaccination and re-vaccination.

As your officer of health I spent a very great deal of time over the "contacts," and in general argument, and advocacy, amongst all sorts of persons in the district on the advantages of vaccination in childhood, and re-vaccination in adult age.

There is clearly anti-vaccination ideas in the district, and this renders it a very difficult matter to take such measures as would really protect the district. I feel quite sure it is the vaccinated portion of the population which keeps the district from the disease in epidemic form.

While we have in our midst so much opposition to the only proved preventive of Small-Pox, I am afraid we shall have to expect occasional visits of the disease, in the same way that we have other infectious diseases.

### SCARLET FEVER.

This disease maintains its mild type and other characteristics. Very many cases have no visible rash at all, when notice is called to the case, and it is often in the "peeling" stage before anybody has any idea of the disease. The visible evidences of the old-fashioned Scarlet Fever are almost absent.

What we use to call malignant Scarlet Fever is scarcely ever seen—high temperature, glandular swellings, with suppuration—dark-coloured skin eruption, and serious throat ailments are hardly ever seen.



Of course I cannot prophesy that these evil days are gone, never to return, as we may have one of these dreadful cases now and then.

I suppose we shall not be quite free these various changes, and the difficult diagnosis of this, till the real microbe, which is the cause of the disease is discovered. It is quite possible that the many different forms of Scarlet Fever that are now seen, may be due to the various kinds of microbes.

I am one of those persons who believes that sanitation has had more to do in changing the type of Scarlet Fever, than have the Isolation Hospitals which were built specially for the eradication of the disease altogether.

Scarlet Fever is one of those diseases where the liability to its attack diminishes with every year of added life.

If you can keep a child away from its influence till 5 years of age or more, the child is less liable to infection every year of its life afterwards. This liability to infection is, in a certain degree, diminished, even when exposed.

In all these infectious diseases you have to battle with infection itself, and with the susceptible individual. We aim at destroying the infection, and strengthen the individual by improving his surroundings and make him less liable to attack.

The first case was at a house in Greaves-street, where three other children had Scarlet Fever at the end of December, 1903, and couldn't be removed to hospital because the beds were all occupied. Pigs were kept here with no proper drainage, and a large heap of manure on the premises.

A young woman, 24 years of age, had the disease at a house on Pentrich-road. It was of a mild type, and no history except going to Derby Infirmary for another purpose. She was removed to hospital.

At Nuttall's Park a girl, 4 years of age, had the disease at her home for three weeks before the doctor was called in, and found her, in the state of "desquamation," on her hands and feet. The premises here are flooded after a rainfall, and there are no ashpits for two houses.

A little boy, 2 years of age, had the disease at Bank House, and I had the impression that he took the disease from some Cambridge visitors. He began with symptoms of Scarlet Fever about a week after they had left. The child was strictly isolated, and properly nursed.

On the Cromford-road a girl, 8 years old, came to the house from Greenwich, and after being here a few days she was found to have symptoms of Scarlet Fever, and was taken back to Greenwich, where

she had the disease in a mild form. It appeared she was removed to Greenwich because at this house there was a gentleman lodger. The kitchen slopstone here was connected with the sewer.

A young man, 18 years of age, was taken to hospital from a house in Street Lane where there had been two cases of the same disease in the latter part of the year 1903.

A young married woman was removed to hospital from Cross Stiles with Scarlet Fever. She appeared to have taken the disease soon after her confinement.

There is no proper sewerage in this locality. The drainage of three or four cottages is conducted to a cesspool in the garden and emptied occasionally.

A young married woman, 20 years of age, took Scarlet Fever a few days after her confinement, and in the result she died of Broncho-Pneumonia. She was attended in her accouchement by the doctor.

The drainage here was defective and the closet not sanitary.

At Alfred Street, a young married woman took the disease. The drains here, for two houses, were blocked up. The sink-stone drains were connected with the main drains. The ashpits were open, and near the houses. Rain water is drunk by the tenants. The patient had been visiting at Nottingham, and had been to places of amusement, and began to be ill a few days after her return home.

At Marehay, a girl, seven years of age, had the disease, and was nursed at home. In a week or so afterwards, her sister, six years old, began with Fever, and she was quickly removed to hospital. The locality just here is in a most wretched condition, and I have had to report it frequently. The drains were blocked up, and house slops flowing about on the surface close to the doors of the living rooms of a large block of houses.

A young woman was removed to hospital from Warmwells Lane with a mild form of Scarlet Fever. The water supply was from a pump on the premises which has been condemned since. The house here was in good order and quite clean.

A boy, five years of age, was taken to hospital from a house at Marehay.

The drainage was conducted into a cesspool close to the back door of the house.

The pan-closet was defective, and the door off its hinges.

A girl, seven years old, had Scarlet Fever at a house in Wellington Street. She is isolated and nursed by her mother. There are two houses here, and both are connected with the main sewer through the sink-stone drain in the house.



At two different houses at Marehay there are two very mild cases, a boy, five years, and a girl, four years. Both houses are very cleanly and orderly. There is no history of the disease in either case.

Both children are isolated and well cared for.

Another mild case is at Warmwells Lane, a girl, five years of age. It is a mild type of disease. Water supply from a draw-well on the premises. Sanitary condition satisfactory.

At a house on Derby Road, Marehay, there were two mild cases of Scarlet Fever.

The children are five and three years respectively. The house is modern and has W.C.

At the Crown Yard, a boy, seven years of age, has Scarlet Fever. The house has no back door, and I've described the bad condition of this yard once or twice.

This house has no back door or windows, and the pantry is also the coal-house. The coals are got in through the only living room downstairs into the pantry, which has no light in it, an old window place with a shutter. The case is a mild one.

Two other mild cases are at houses situate on Derby Road, Marehay.

Two boys, both of which are four years of age. The houses are situate on opposite sides of the road. They have been recently erected, and are fairly sanitary. One house has a W.C. One of the cases has been removed to hospital.

At Park Road, there were four Scarlet Fevers in one house, all very mild cases.

There had been a case of Diphtheria here some time before, and the alterations ordered on that occasion were in process at the time of my visit. The house was one of a row of eight or ten houses.

A case at Waingroves was a boy 11 years of age. He was isolated at home and nursed by his mother. There were three bedrooms for four persons, so this could be done. There were certain insanitary arrangements on the premises, and the water supply was from a dip-well with house bucket and cord, and the mouth of the well was on the ground level, which was an unsatisfactory arrangement.

Two other cases were at houses situate at Peas Hill. There is no proper drainage here, there being no public sewer, though there is a fair population. In these two houses, and in others adjoining, the drainage was conducted into what was originally a rain water tank, situate very near the back doors.

The tenants justly complained of the bad smells, in addition to being deprived of the rain water so valuable in any house.

A child, six years old, had Scarlet Fever at a house in Warmwells Road. The case was a very mild one. The house was in excellent state of order and cleanliness, but there was an old drain opening into the larder where the food was kept. It was about a yard below the level of the floor of the living room, and I dare say put there to enable the tenant to throw buckets of water on the floor when it wanted cleaning to save the trouble of scouring the floor in the proper way. When I saw it powdered chloride of lime was sprinkled all around it to take away the smell, but I wondered how the food would be affected.

The above are a few of the cases of Scarlet Fever which seemed to call for special mention.

Table III shows that 43 cases of Scarlet Fever were notified during the year 1904, and 15 of this number were removed to hospital.

The only death from this disease, as mentioned above, was that of a young married woman, who unfortunately took Scarlet Fever a few days after her confinement, and complications of Pneumonia caused a fatal ending.

With this exception Scarlet Fever has been very mild all over the District.

I'm afraid it is this very mildness which makes many people so careless about having the disease in their family.

It is a common practice for one mother to leave her house and family of children and to go to some house in the same row to decide whether a child has Scarlet Fever or not, and in a short time return to her own children without any disinfection of either hands or clothing.

In other cases I believe the Fever is often brought to the house by hawkers, who, in the display of their wares, very often sit down in a chair in the house and remain a considerable time.

It is most often the case that when I am trying to get at the history of an infectious disease I am told confidently it is the school.

This institution gets a good share of blame, and I have no doubt during the prevalence of this mild form of Scarlet Fever there have been numbers of children sent to school with Scarlet Fever unrecognised, and hence its spread.

I do, myself, strongly object to children under the age of five years being sent to school at all. They are very likely to carry infection into schools, especially Measles and Whooping Cough.

Education doesn't come in here at all, because the brain, at that age, doesn't want to be disturbed by anything likely to put ever so slight a strain upon it.

Compulsory school attendance wants some modification, because very many children are sent to school unwell and unfit only because a doctor's certificate can't be obtained without payment.



## DIPHTHERIA.

This disease was once one of the most fatal and dreaded of all diseases.

It is now almost robbed of its terrors.

The present and future generations will, through the discoveries of science and the great advance of preventive medicine, get through the world with very much less suffering and more vigour than their predecessors.

I suppose there will always be some struggle for existence as long as this world shall last, but preventive medicine will give strength and fibre to the people, and we must have an increasing population if we are to maintain our position in the world.

It is not, at present, known what causes Diphtheria, but it is pretty well agreed that school attendance very largely influences its spread.

The petting of domestic animals may be one cause, and fowls are subject to it.

Sanitary arrangements are not thought to have much influence over the disease. We know it is caused by a special bacillus, but we don't know what favours its growth either inside or outside the body, or by what means it is transferred from the sick to the healthy.

I can't help thinking that a combination of insanitary conditions must have some influence on its dissemination.

Foul drinking-water, filthy drains with sewer gas, wet and damp soils, especially if caused by various foul liquids acted upon by sunshine.

We may hope that Anti-toxin may soon become less costly so that every household may obtain it when required. It is the specific for Diphtheria, and has saved thousands of lives.

One preventive measure would be to exclude all sore throat cases from the schools.

When it can be had, Anti-toxin should be used to all the inmates of the house where Diphtheria exists. It is similar to vaccination in Small-pox, but its efficacy is not so lasting. Its immunity only lasts a few weeks, but it is valuable, nevertheless.

A boy, five years of age, took the disease at a house in Street Lane. He was strictly isolated and well nursed. The premises at the back of the house were very insanitary for want of proper drainage.

At Upper Marehay, a young girl, 17 years of age, had the disease. She had not been away from home, nor had there been any visitors to the house. There was nothing to account for the disease.

Another case in the same locality was that of a boy, four years of age. He seemed to go on very well.

The ashpit here was in a dilapidated condition, and the water supply was from a deep well close to the back door, but only lined with dry brick, and was very liable to pollution.

At Warmwells Lane, in the same neighbourhood, a girl, seven years of age, died from Diphtheria after a few days' illness.

The water supply here was from a pump on the premises, which often became dry in summer, and after a rain-fall the water became muddy.

At Nuttall's Park, a boy, six years of age, was attacked with Diphtheria and was removed to hospital. The house and premises were clean and fairly satisfactory. Pigeons and fowls were kept on the premises. The boy had not been away from home.

A boy, 9 years of age, in Bamford-street, had this disease. The house and premises were very clean. There was a well on the premises in the garden. The mouth of the well was on a level with the garden soil, and close to a footpath. There was nothing to prevent the rain-fall from getting into the well, which at certain times would wash down some of the garden manurial material. The overflow rain water pipes from a cistern were also conducted in this well.

I condemned the water, and the County Analyst pronounced it unfit for drinking purposes.

A girl, 8 years of age, living in Warmwells-lane, had an attack. She was at once treated with anti-toxin, the what may be called specific remedy for Diphtheria. Water supply here was from a spring in the meadows. Sanitary condition of premises fairly satisfactory.

Another case occurred in Bamford-street, a boy, 9 years of age, had the disease in a mild form. The water supply here was from a draw well, close to the back door. The County Analyst certified this water to be unfit for drinking, and I had also condemned it previously.

A little girl, 5 years of age, had a mild attack of the disease at a house on Lowe's-hill. The child had not been from home, and the house and premises were satisfactory. No history at all could be got.

In the year 1903 we had 10 cases of Diphtheria and 3 deaths.

In 1904 we have 9 cases and 1 death. Of course the treatment of diseases has nothing to do with me as Medical Officer of Health, but I happen to know that anti-toxin has been used this year, and successfully.

It used to be looked upon as a town disease, that is to say, Diphtheria only made its appearance in large populous districts.

Now we have it in purely Rural Districts, though, as before said, the schools, I believe, are largely responsible for it.

It is very singular, but, like many other diseases, some animals are immune to Diphtheria, and others susceptible.



Man, guinea pigs, rabbits, fowls, and cats are very susceptible to the disease. Dogs, cattle, and horses not so much, and rats and mice very little, if any.

This disease has appeared in very many villages during the year 1904, and it seems as though there was a tendency for it to spread about this part of Derbyshire, and in my other districts.

One very suspicious evidence of its presence at any given time or place is the presence of sore throats, not at all of a serious character at the first, and very often they are only of a very simple character, and have no bearing on Diphtheria, but it is always best not to neglect sore throat.

### TYPHOID FEVER.

This is a disease which cannot occur except through the admission into the body of a specific microbe, and this generally takes place by swallowing it in water. It can also be disseminated by the house fly, and dust.

This peculiar microbe multiplies in the human body, especially in those persons who are weakly and debilitated, and have not the power to resist their growth and development, like a person in robust and vigorous health would.

The disease at one time was not considered contagious, and although I think there has been ample proof that it is, yet there are still persons of authority who hold the opposite opinion.

Perhaps water may be the principal means by which the disease is conveyed, but accumulations of filth, especially of human excreta, may become very fertile breeding grounds for this Typhoid Bacillus. In many bad cases of this Enteric or Typhoid Fever, this peculiar microbe has been found in the perspiration, the urine, excreta, and expectoration from the patient.

Uncooked vegetables, oysters, mussels, and milk can all convey Typhoid Fever, so that pure water alone won't stamp out the disease.

An eminent Professor has introduced Anti-Typhoid Inoculation, and though perhaps its efficacy may not at present be firmly established, it has proved to have a mitigating influence on the severity of the attack.

His Majesty's Soldiers in the South African Campaign voluntarily offered themselves for Anti-Typhoid Inoculation. Of those who were inoculated about 1 in 48 had Typhoid Fever. Of those who were *not* inoculated with the Anti-Typhoid Serum, the proportion of those who took the fever was 1 in 7.

In a Regiment at Meerut, in India, the same favourable results were shown, and proved that the inoculation was a safeguard.

In Beighton-street the Town Nurse took the disease. It appeared she had an attack of Pneumonia, and after about ten days Typhoid was diagnosed. She had a trained nurse, and every precaution was taken.

At Nuttall's Park, a girl, 13 years of age, had the disease. The drainage here was very defective.

At Old Station-road, a young man, 17 years of age, had the disease. He was fond of cycling, and went about a good deal. He had no shell-fish of any kind. He worked at the colliery.

A case occurred at Upper Hartshay. A boy, 14 years of age, took the disease. I was told he had bathed in the Canal, and had not been at all well since. I explained that wouldn't cause Typhoid Fever. He had not been from home at all. He eventually died of the disease. I had a sample of the water from a draw-well on the premises analysed (I had condemned it previously as dangerous water for drinking purposes), and the County Analyst confirmed my opinion, and condemned it for drinking purposes. The well was a fairly deep well, situate so that it could be easily polluted, and it was lined with dry brick, and situate close to the hedge-side, and in heavy storms could easily be flooded with surface water.

A married woman had an attack of this disease at a house in Ivy Grove. The house and premises had recently been put in a thorough state of repair, and sanitary work done. There was no history whatever. Every precaution was taken, and there was good nursing. Water supply was from the public mains.

These were the only 5 cases of the disease which occurred during the year 1904 in the Ripley District. In each case, I believe, I examined the water, but in only the Hartshay case was I thoroughly convinced of it being water borne, and this is the only case of death from the disease during the year.

Considering that, with all our careful inspection of the district, there are many places where filth rapidly accumulates again after removal, and in places where an amount of watchfulness would prevent it, we may be said to be very free from Enteric Fever, which has rightly been called a filth disease.

The peculiar microbe has very long existence in the heaps of refuse in the midden, the sodden soil round the cottage doors, the half-liquid contents of house drains and other filthy accumulations. In fact, to promote a healthy home, all the waste liquids and solids of every description should be got away before decomposition sets in.

#### PUERPERAL FEVER.

A young married woman, 21 years of age, died of Puerperal Fever 14 days after her accouchement. She was attended to by a mid-wife residing in Street Lane, a few doors off.



The doctor was called in three or four days after her confinement. The house was clean and orderly, but drainage is very much required in that locality.

This disease, or rather this condition, is a kind of poison, absorbed through the blood in some cases of parturition.

These cases, if attended by a mid-wife, have to be strictly inquired into under the new Mid-wives' Act. This I did and reported the same to the County Council, in accordance with the Act.

### CANCER.

In the year 1903 I reported nine deaths from Cancer, this year, 1904, the deaths from this terrible disease numbered seven.

Dr. Snow, Surgeon to the Cancer Hospital, says that Cancer mortality is rapidly *increasing* in every part of the civilised world.

The Cancer death-rate in 1864 was 385 per million persons living in England and Wales, and in 1901 the rate was 691 per million among males and 985 per million among females. He says heredity is *not* a true cause of Cancer.

Every case had some definite excitant, whether there was history of Cancer in the family or not.

The disease bears no relation to soil, climate, or food.

The following deaths were registered as from Cancer at Ripley District during 1904 :—

Female, 55 years	Cancer of Uterus	Ripley
„ 49 „	„ „ Breast	„
Male 70 „	„ „ Stomach	„
„ 47 „	„ „ Stomach	„
Female 38 „	„ „ Breast	„
Male 57 „	„ „ Rectum	„
Female 71 „	„ „ Breast	Waingroves

### UNCERTIFIED DEATHS.

Female, 48 years	Heart Disease	Ripley
Male, 1 month	Convulsions	Marehay
„ 62 years	Heart Disease	Ripley
„ 68 „	Paralysis	„
„ 1 month	Convulsions	„
Female, 57 years	Heart Disease	Fease Hill
„ 3 months	Diarrhoea	„ „
Male, 21 days	Deficient Vitality	Ripley

The above causes of death are the presumed causes of death in the absence of a medical certificate.

## ACCIDENTS AND INQUESTS.

1904.

Ripley	Male, 46 years	Suddenly from Syncope
"	" 69 "	Suddenly from Heart Disease
"	Female, 76 "	Shock from fractured thigh
"	" 9 "	Accidentally drowned in cistern
"	Male, 26 "	Suicide by drowning
"	" 17 "	Blood poisoning
"	" 64 "	Suicide by carbolic acid
"	" 79 "	Suddenly from Syncope
Lower Hartshay	Female, 76 "	Exhaustion from fractured thigh in 1903
Upper Hartshay	" 22 months	Run over by a dray
Marehay	Male, 17 years	Fall of roof in colliery
Pease Hill	Female, 11 months	Natural causes

## DEATHS FROM INFECTIOUS DISEASES.

Marehay	Female, 7 years	Diphtheria
Street Lane	" 21 "	Puerperal Fever
Waingroves	Male, 11 months	Measles
Ripley	Female, 20 years	Scarlet Fever
"	Male, 22 months	Measles
"	Female, 8 "	Whooping Cough
Upper Hartshay	Male, 14 years	Typhoid Fever

## INFANT MORTALITY.

This is the death of children, who die in the first year of their infancy, in proportion to the total number of births during the year.

This is a serious question. The birth-rate in England has declined for the last three or four years, but this Infantile Mortality seems to be *increasing*.

There are several causes which may, and do, have great influence upon this mortality.

I dare say too early marriages produce immature, unhealthy infants, who die very soon after birth, or, if they do live a short time, are physically weak, and quickly succumb to disease.

Another cause is children not being nursed and fed on Nature's natural food, the milk of the mother.

The mortality of breast-fed children is very much lower than those of hand-fed children.

Then we have cold, exposure, and general neglect to contend with, and children born in low, damp, dark courts and alleys, where sunshine scarcely ever comes, disease and the doctor appears.



In 1903, the rate of Infant Mortality in England and Wales was 132 per 1000, and in Ripley it was 117 per 1000.

In 1904, England and Wales had an Infant Mortality of 146 per 1000. In Ripley the rate is 107·81.

If you look at Table I. it will be found that the highest Infant death-rate the Ripley Urban District has had for the past ten years was in the year 1897; it was then 161·65 per 1000.

If we take the average of 10 years for Ripley we find it to be 130·95 per 1000.

This is very much higher than it ought to be, though the rate of 107·81 per 1000 for the year 1904 is the lowest it has been, so we can hope for a continued improvement, and more care shown for infant life.

Ripley can justly boast of a high birth-rate, but this Infant death-rate takes away some of its honours.

#### TOTAL BIRTHS IN THE VARIOUS PARTS OF THE DISTRICT, 1904.

Localities.				Boys.	Girls.	Total.
Ripley	...	...	...	133	133	266
Marehay and Street Lane	...	...	...	28	23	51
Peas Hill and Waingroves	...	...	...	11	17	28
The Hartshays	...	...	...	13	10	23
Butterley Park	...	...	...	2	1	3
Totals				187	184	371

The total birth rate for the year 1904 is 35·57 per 1000.

The Urban birth rate for England and Wales for 1904 is 27·9 per 1000.

#### RIPLEY URBAN DISTRICT COUNCIL, 1904.

##### DEATHS.

Parishes.				Males.	Females.	Total.
Ripley	...	...	...	53	53	106
Marehay and Street Lane	...	...	...	13	12	25
Waingroves	...	...	...	7	8	15
The Hartshays	...	...	..	4	2	6
Butterley Park	...	...	...	3	1	4
Totals				80	76	156

The total death rate for 1904 is 14·96 per 1000.

The Urban death rate for England and Wales for 1904 is 16·2 per 1000.

The deaths occurred in the following quarters of the year :—

March Quarter	48
June „	43
September „	29
December „	36
<hr/>	
Total	156

#### DEATHS AT THE AGE PERIODS.

Under 1 year ...	...	40	3.83 per 1000
1 year and under 5 years	...	21	2.01 „
5 years and under 15 years	...	5	.47 „
15 years and under 25 years	...	8	.76 „
25 years and under 65 years	...	32	3.06 „
65 years and upwards ...	...	50	4.79 „

There were 61 deaths under 5 years of age.

These 61 deaths had an average age at death of about 12 months.

Fifty persons who died at the age of 65 years and upwards had a mean age at death of 75 years.

Put in another way, we find that 39 per cent. of the total deaths had a mean age of 12 months.

Thirty-two per cent. of the deaths were aged persons with a mean age of 75 years.

The 40 children who died in the first year of their existence had a mean age at death of about 11 weeks.

#### RATE PER 1000 OF THE PRINCIPAL DISEASES.

Diseases.	No.	Rate per 1000.
Notifiable Diseases	4	.38 per 1000.
Zymotic Diseases	5	.47 „
Phthisis	8	.76 „
Cancer	7	.67 „
Bronchitis	20	1.91 „
Pneumonia	7	.67 „
Heart Disease	10	.95 „

Male deaths 80, 7.67 per 1000.

Female deaths 76, 7.29 per 1000.

#### URBAN DISTRICT POPULATION.

I estimate the population of the district to the middle of 1904 to be 10,350.



TABLE I.

## RIPLEY URBAN DISTRICT.

Vital Statistics of Whole District during 1904 and previous years.

Year.	Population Estimated to Middle of each year.	Births.		Deaths under One Year of Age.		Deaths at all Ages.	
		No.	Rate.	No.	Rate per 1000 Births Registered.	No.	Rate per 1000
1895	9172	370	40.34	55	148.64	158	17.22
1896	9398	349	37.13	43	123.20	143	15.21
1897	9596	359	37.41	58	161.65	150	15.63
1898	9774	334	34.17	51	152.69	157	16.06
1899	10052	388	38.59	43	110.82	141	14.02
1900	10348	327	31.60	43	131.49	150	14.49
1901	10120	368	36.36	54	146.73	141	13.93
1902	10250	375	36.58	41	109.33	114	11.12
1903	10350	354	34.20	41	117.14	138	13.33
Averages for years 1895 to 1903	9895	358	37.37	36	133.52	143	14.55
1904	10430	371	35.57	40	107.81	156	14.96

## CENSUS 1901.

Area of District in Acres (exclusive of area covered by water) 2815.

Total Population at all Ages, 10,111.

Number of Inhabited Houses, 2125.

Average Number of Persons per House, 4.76.

## TABLE II.

## RIPLEY URBAN DISTRICT.

Cases of Infectious Diseases Notified during the Year 1904.

Notifiable Diseases.	At all Ages.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 and Upwards
Small-pox .....	6		1		1	4	
Diphtheria .....	9		1	8			
Erysipelas .....	4			1		3	
Scarlet Fever .....	43		13	24	6		
Typhoid Fever.....	5			2	2	1	
Puerperal Fever ...	1				1		
Total .....	68		15	35	10	8	

Total Cases Notified in each Locality, 1904.

District.	Small-pox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhoid Fever.	Puerperal Fever.	Total.
Ripley .....	6	2	3	27	4		42
Marehay & Street Lane.....		7	1	14		1	23
The Hartshays.....				1	1		2
Waingroves and Peas Hill .....				1			1
	6	9	4	43	5	1	68



## TABLE III.

## RIPLEY URBAN DISTRICT.

Cases of Infections Disease Removed to Hospital, 1904.

Diseases.	Ripley.	Marehay and Street Lane.	The Hartshays.
Small-pox.....	6		
Diptheria .....	1		
Scarlet Fever .....	15	2	1
Typhoid Fever .....	1		
	23	2	1



TABLE IV.

## RIPLEY URBAN DISTRICT.

Causes of, and Ages at, Death during Year 1904.

## DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.

Causes of Death.	All Ages	Under 1 Year.	1 and under 5 Years.	5 and under 15 Years.	15 and under 25 Years.	25 and under 65 Years.	65 and upwards.
Measles .....	2	1	1				
Scarlet Fever ...	1				1		
Whooping-cough	1	1					
Diphtheria and Membranous Croup .....	1			1			
Enteric Fever ...	1			1			
Diarrhoea .....	2	2					
Puerperal Fever	1				1		
Phthisis .....	8				4	4	
Other Tubercular Diseases .....	3	1	1	1			
Cancer, Malig- nant Disease...	7					5	2
Bronchitis .....	20	5	5				10
Pneumonia .....	7	2	4	1			
Pleurisy .....	1						1
Other Diseases of Respiratory Organs.....	1					1	
Premature Birth Diseases & Acci- dents of Partu- rition .....	11	11					
Heart Diseases...	10					1	4
Accidents.....	5		1	1	1	6	2
Suicides .....	2					2	
All other causes	71	17	9		1	13	31
All causes...	156	40	21	5	8	32	50



## THE ISOLATION HOSPITAL.

Although I have no desire to add to the burdens already imposed upon the District, I can't avoid again calling attention to the question of a Sanatorium, or Convalescent Home, for Scarlet Fever patients to be sent to for a week or two before being sent home directly they are discharged from hospital.

This Home, or Sanatorium, must be entirely distinct and away from the Isolation Hospital, so that the patients may be free from the diseases before they return home to mix with other children. I think this Institution should not be specially provided by the Belper Joint Hospital Committee, but should be provided by the County Council for a certain area, to include within its operation several Isolation Hospitals.

I am convinced that, as it is now, we have many of what could be called "Return Hospital Cases" simply for the want of some such arrangement.

At present, patients are discharged from hospital in all weathers, and are got home in various unsatisfactory fashions.

As soon as they get home they are naturally sought for by their schoolfellows of both sexes, and the usual affectionate greetings take place with the other children.

It is impossible for the hospital patients to be discharged perfectly free from disease, even after the usual six weeks' residence there, and they are often fairly free from any visible symptoms of disease many days before discharge, but they sleep in the wards, and the whole area within the walls of the hospital grounds is more or less an infected area.

In the year 1903, you had 49 cases of Infectious Diseases notified, and 15 of these cases were sent to hospital.

In 1904, you will find by the Tables, there have been 68 notifications, and 26 of these have been admitted to hospital.

I wish your Hospital Committee would have less visiting allowed at the hospital.

I feel pretty certain numbers of people cannot go inside the walls of the hospital grounds without some danger of taking the infection away with them, and there might be rules for a less number of visitors and less frequent visiting days.

Some of these remarks don't altogether apply specially to your own Ripley District, but, as I have two other large populous Districts, I put them together as a whole and come to these conclusions.

There has been, I believe, a great *increase* of Scarlet Fever everywhere, and its mild type is very remarkable.

Ripley District may congratulate itself on the number of notifications, and also the admissions to hospital.

### SCHOOL CLOSING.

Only the schools at Waingroves have been closed for a short period at the latter part of the year on account of Measles epidemic.

### PUBLIC WORKS.

Sewering is still required at Peas Hill, Street Lane, and Waingroves.

There are parts of Pease Hill in very bad condition for want of a main sewer.

I believe plans have been prepared, but arrangements have not been settled.

I shall be glad when the Council can see their way to abolish the common privy and adopt water closets.

The pan, or pail, system is a little better than the midden arrangement, but without the dry earth it is a very unsatisfactory way of dealing with human excrement.

### GENERAL INSPECTION.

I am, of course, unable to give details of the many Sanitary Improvements which have been effected during the past year.

I know that a good deal of Sanitary Work has been done, and a great many of my complaints, made in my usual Monthly Reports, have been attended to.

Your late Inspector accompanied me when I went round the district on my ordinary visits of inspection, when he was not engaged in other work, and I myself saw a good deal that had been carried out.

In other years, I have been able to insert the Inspector's own detailed report on these matters, and I have been perfectly satisfied with it. I regret, very much, the sudden departure of so competent an official.

It makes no difference to my regular inspections, especially of Infectious Diseases, every one of which I personally visit, and closely examine the condition of the premises. At the same time I shall be glad when his successor is appointed, so that I can sometimes, at all events, indicate to your Inspector what is required when he is with me on the spot.



I hope all New Dwelling-houses will show upon the plan that Water Closets are provided.

This concludes my Annual Report for the year 1904, and on the whole I consider it a very favourable report with regard to that class of disease which is looked upon as preventible.

The District (with the exceptions mentioned) is in a much more satisfactory state than it ever has been, and I hope we shall go on making improvements.

Your Sewage Farm I leave in the hands of the County Medical Officer, who has hitherto dealt with its construction and management.

I have added another year to my long years of service as your officer, and desire to thank the Chairman and members of the Council for their courtesy and kindness to me at all times, and to your Clerk, with whom I have very frequent communication, and I hope the same good feeling will continue in the future as in the past.

I remain, Gentlemen,

Yours faithfully,

**EDWARD GAYLOR,**

Medical Officer of Health,

Ripley Urban,

Belper Rural, and

Alfreton Urban Districts.

Belper, February 14th, 1905.



